

Clinical aspects, resistance, treatment

Improving Tuberculosis Control: do we need more than better diagnosis and care ?

Lienhardt Christian

Clinical Trials Division, International Union Against Tuberculosis and Lung Diseases (The Union), Paris, France.

Tuberculosis (TB) at the beginning of the 21st century presents the striking paradox of a well-defined disease which, despite the availability of effective drugs and the definition of clear worldwide control strategies, has been declared a global emergency. TB and HIV disease have now merged into a synergistic pandemic, and in countries with high HIV prevalence, the burden caused by dual infection greatly exceeds the present control capacities. Despite the implementation and generalisation of the standard DOTS (Directly-Observed Therapy, Short-course) strategy and the creation of international and public-private structures with well-established targets aimed at boosting research and improving TB control worldwide, the epidemic rages on. Approximately 1.7 million people die each year from TB and in 2004, it is estimated that about 8.9 million persons developed the disease, fewer than half of which were reported to public health authorities and WHO; about 3.9 million cases were sputum smear positive, the most infectious form of the disease. The treatment success rate remains substantially below the target of 85%, particularly in the WHO African region where a large proportion of those who are treated fail to be cured, either due to incomplete adherence to treatment, presence of MDR-TB or co-infection with HIV. To confront this, scientific research is presently addressing several priorities in the areas of diagnosis, treatment and prevention of TB, such as: (1) the development of rapid, field-friendly and reliable tests for the diagnosis of TB disease; (2) the identification of more effective drug combinations and the development of novel drugs to improve treatment of TB (including MDR-TB and treatment of dual TB/HIV infection); (3) the development of novel anti-TB vaccines that can offer more solid and long-lasting protection than BCG. In parallel to these research efforts, issues related to the limited efficiency of national TB control programmes to ensure provision of appropriate care and patient 's support must also be addressed, and methods to improve access to and delivery of treatment must be identified. In our presentation, we will review these various research areas and try to link them with the present burning needs in terms of TB control.